

Guidelines for Measuring Height and Weight

For Indiana School Children K-12



Indiana State
Department of Health

Indiana Department of
Education

With great appreciation to WellPoint Foundation for the donation of 2,000 squares and tapes

To download a copy and for more information go to:

<http://www.in.gov/isdh/programs/cnop/index.htm>

INTRODUCTION

The purpose of this training guide is to provide guidance to school personnel who will be collecting height and weight of students in their school environment. The training guide is intended to answer the majority of questions relating to these measurements.

PURPOSE OF PROGRAM

The intent of collecting and analyzing this data is to screen our children to determine the prevalence of overweight and obesity in Indiana children and the pattern of overweight over time. Data collected will be used to create policies and programs that promote healthier environments for our Indiana children. The height and weight data collected will not be used for diagnosing any individual student with a weight problem.

OVERWEIGHT AS A PUBLIC HEALTH PROBLEM

Compared to other countries, the United States has an overweight population. There are predictions that the children of today will be the first generation to live shorter, less healthy lives than their parents because of excessive weight. While we cannot predict the future of our children who are overweight, it is believed they will be more prone to the same conditions as adults who are overweight, including: premature death, early cardiovascular disease, high blood pressure, arthritis, some cancers and type 2 diabetes.

According to CDC, 112,000 annual deaths are attributed to obesity. In 2003, medical costs attributed to obesity were \$75 billion dollars or \$175 annually for each US taxpayer. Indiana has recently been identified as the 9th heaviest state in the nation based on 2002-2004 averages.

OVERWEIGHT IN CHILDREN

In 1999, 13 percent of children aged 6 to 11 years and 14 percent of adolescents in the United States were overweight. This prevalence nearly tripled for adolescents in the past two decades. Overweight teenagers have already been shown to have metabolic risk factors for diabetes and heart disease. Type 2 diabetes, previously considered an adult disease, has increased dramatically in children and adolescents. The most immediate consequence of overweight as perceived by the children themselves is social discrimination. This is associated with poor self-esteem and depression.

The limited data we have indicates Indiana children are not doing better than the national average [YRBSS2003 data]. Fourteen percent are at risk of overweight; and 12 percent are overweight. Since the demographics of our state are changing, it is imperative that we begin longitudinal measurements of our children.

WHAT ARE WE ASKING YOUR SCHOOL TO DO?

Schools are asked to participate in a height and weight screening program by measuring the height and weight of students grades K-12. The screening information will be reported to the Indiana Department of Education (IDOE) and forwarded to the Indiana State Department of Health (ISDH) for analysis. The reporting process includes steps that assure the data remains confidential and anonymous. (See page 6 of this document.)

EQUIPMENT TO BE USED FOR HEIGHT AND WEIGHT MEASUREMENT

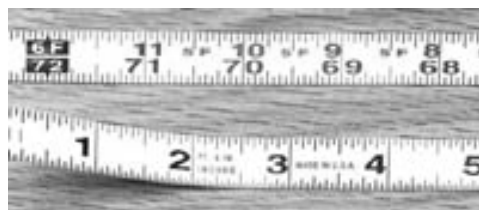
- The equipment and technique for taking the measurements must be similar for all schools to ensure uniformity of data collected across the state.
- All schools will receive a tape measure and rafter square for measuring height.
- For weight measurement, please use a balance beam scale, if it's available.

Balance Scale

- ANY PROPERLY WORKING SCALE IS ACCEPTABLE. Please make sure the scale is calibrated according to its instructions.
 - For a balance scale: with the counter weights at the zero marks, the scale should be balanced. If not, there is a screw on the very end of the counterweights that must be adjusted until the scale is balanced at zero.
- The scale should be capable of taking measurements throughout the school.

Tape Measure and Rafter Square

- A tape measure is enclosed for your use.
- A rafter square is enclosed to have an accurate height measurement.



SETTING UP YOUR SCHOOL FOR MEASUREMENTS

- Parental consent for the collection of height and weight measurements will be *active parental consent*.
- More information on height and weight collection can be downloaded from the Indiana State Department of Health Web site: <http://www.in.gov/isdh/programs/cnop/index.htm>
- Inform students of the screening process that will be used to collect measurements.
- Work with classroom teachers to schedule measurement times that have the least interruption of instructional time.
- Identify the area within the building where measurements will be done.
- Make sure the correct equipment and forms are available.

Respect Privacy

The screening area should ensure the privacy of each student during measurements. Privacy includes the area within the school where the measurements are taken, the description of the measuring process, and the interpretation of the numbers.

- Identify staff to do the measurements. Staff may include school nurses, physical education teachers, classroom teachers, and volunteers etc. Responsibility for assuring compliance of *volunteers in matters of confidentiality* rests with the individual schools/corporation following *LEA policy*.
- For efficiency, two people should work together to measure and record the measurements. No students should be performing or recording the measurements.
- Only the screeners should observe the results.
- No other students should be present or allowed to hear the results.
- Results should be kept confidential.

Be Sensitive as Screeners

Do not comment on the height or weight of a student as measurements are taken. Neutral comments such as “thank you” or “you can step off the scale” are appropriate. Do not judge student on his/her height or weight. Do not label a student as too tall, short, thin, or overweight based on a single height and weight measurement.

MEASURING WEIGHT

- Place scale on solid level floor (hard surface, not carpeting).
- Balance the scale.

Procedure:

1. Zero the scale before the student steps on the scale.
2. Have student remove shoes and bulky clothing (no jackets).
3. Have student empty out pockets of any objects (keys, change, wallet).
4. Have student stand with back facing the sliding beam or other readout, both feet on the center of the platform, and not touch other objects or persons.
5. Record the weight to the nearest 0.5 lb.
6. At the end of measuring and recording the weight, return the scale to the “zero” position to ensure privacy for each student.



MEASURING HEIGHT

- Measuring tape should be cut at bottom so that “0” measure is at the floor.
- Measuring tape should be cut at seven feet on top.
- Place the tape straight up and down securely on the wall or door.

NOTE: DO NOT USE THE HEIGHT BAR ON A BALANCE SCALE...IT IS NOT ACCURATE!!!



Procedure:

1. Have student remove shoes, heavy outer clothing, hats, and barrettes.
2. Have student undo a hairstyle that interferes with measurements. If the student is unwilling or unable to undo hairstyle, locate crown of the head to the best of your ability.
3. Have student stand with his/her back and feet against the wall on a flat floor directly in front of the measuring tape. You may wish to mark the floor with masking tape to indicate where the student should stand. The tape should run directly down the center of his/her back.
4. Student should stand with the back as straight as possible. Weight should be evenly distributed on both feet.
5. Position the student with heels close together, legs straight, arms at sides, and shoulders relaxed. Buttocks and shoulders should touch the wall.
6. Have student inhale deeply and stand fully erect without altering heel position or allowing heels to rise off the floor.
7. Have student look straight ahead with head erect.
8. Place the square flat against the wall. Lower it until it firmly touches the crown of the head with sufficient pressure to compress the hair.
9. Hold the square steady and have the student move out from under the square.
10. Read the measurement at eye level where the lower edge of the square intersects the measuring tape.
11. Read the measure to the nearest 0.25 inches and record.



RECORDING WEIGHT AND HEIGHT

Data must be submitted electronically. The data should be sent in Excel, comma delimiting (save as .xls or .csv). A sample spreadsheet is attached. Instructions can be downloaded from the ISDH web site: <http://www.in.gov/isdh/programs/cnop/index.htm>

We suggest that you set up an electronic spreadsheet with the following columns:

- 1) **Date of Measurement:** Complete date using month, day, and year. If data was obtained on September 2, 2005 enter 09 02 2005. Use a *separate page for each day* data is collected.
- 2) **Information on Each Student Measured:**
 - a) **Name of student:** This information will not be passed to the Indiana State Department of Health or the Indiana Department of Education.
 - b) **Student Test Number (STN)**
 - c) **Height:** Enter height of individual. Use inches to the nearest 0.25 inch. Allowable decimal entries are .00, .25, .50, or .75. **Do not leave blank if zero.** If height is 62 inches, record as follows: 6 2 . 0 0
 - d) **Weight:** Enter weight of individual. Use pounds to the nearest 0.5 pound. Do not change the denominator of the fraction. If weight is 56 pounds, record as follows: 0 5 6 . 0

3) **Comment:** If unable to assess height and weight, please note reason, using the following coding:

- A Student absent
- C Child refused
- R Parent refused
- D Student unable to stand without support secondary to physical disability
- P Student pregnant
- Any other reason

EXAMPLE

REPORTING OF HEIGHT AND WEIGHT MEASUREMENT RESULTS

| Measurement Date | | | Student Name | Student Test Number | Height | | | | Weight | | | | | Comment | | | |
|------------------|---|------|-----------------|---------------------|--------|---|---|---|--------|----|---|---|---|---------|---|----|---|
| 10 | 1 | 2005 | Doe, Jane | 123456398 | 4 | 8 | . | 2 | 5 | in | | 6 | 1 | . | 5 | lb | |
| 10 | 1 | 2005 | Indiana, Robert | 234566353 | | | . | | | in | | | | . | | lb | A |
| 10 | 1 | 2005 | Wabash, Sage | 345245256 | 6 | 0 | . | 5 | 0 | In | 1 | 1 | 0 | . | 0 | lb | |

Reports are to be submitted electronically to the IDOE by May 1, 2006. Schools will be notified of the e-address to which the electronic report is to be submitted.

Reports should be prepared for electronic submission in Excel (comma delimiting) format.

Student names must be removed before submitting the report.

The report will contain the following information from the worksheet:

- Measurement date
- STN
- Height
- Weight

The IDOE will append the data received from the schools so that it will also include:

- Gender
- Age (in years only)
- Ethnicity
- Race

The STN will be removed from the data before it is sent to the ISDH, thereby assuring that the data is confidential and anonymous. The data will be aggregate corporation data.

RECOMMENDED READING

The Institute of Medicine Committee on Prevention of Obesity in Children and Youth has developed a comprehensive national strategy that recommends specific actions for families, schools, industry, communities, and government. The committee's recommendations are described in the report *Preventing Childhood Obesity: Health in the Balance*. An executive summary can be found on their Web site: www.iom.edu

The report's action plan lays out explicit goals and recommendations for preventing obesity in children and youth in various segments of society. It also explores the actions needed to initiate, support, and sustain the societal and lifestyle changes that can reverse the trend among our children and youth.

WHAT TO DO IF?

Student refuses to be measured:

- Be non-judgmental.
- Re-affirm student has right to refuse.
- Mark the data collection sheet appropriately.

Student asks for results of height and/or weight:

- Write down the numbers on paper without the student's name and hand to student directly without comment.
- If the student makes a negative remark, it is appropriate to respond with a supportive comment.
- If the student asks if he/she is too fat or too short, say you don't know. Suggest the student ask his/her doctor or school nurse that question.

Weight is greater than the scale can measure:

- Be non-judgmental.
- Advise the student that some body types are associated with a higher body weight. Growth and development can shift body shapes and sizes.
- Refer them to school nurse if further questions.
- Record as "greater than 400 lbs."

Height is greater than seven feet:

- Record as "greater than seven feet."

Student becomes emotional:

- Be supportive.
- Make immediate referral to school counselor or school nurse.

For Additional Information:

American Academy of Pediatrics Policy Statement on Preventing Obesity:

<http://aappolicy.aappublications.org/cgi/content/full/pediatrics;112/2/424>

Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Adolescent and School Health:

<http://www.cdc.gov/nccdphp/dash>

Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity:

<http://www.cdc.gov/nccdphp/dnpa>

Guidelines for Collecting Heights and Weights of Children and Adolescents in School Settings. How to Measure in a Private, Respectful Way. September 2000. Center for Weight and Health, College of Natural Resources, University of California.

<http://www.CNR.Berkeley.EDU/cwh/index.html>

Indiana State Department of Health: <http://www.statehealth.in.gov>

Indiana Department of Education: <http://www.doe.state.in.us/>